To: T13 Technical Committee
From: Rob Elliott, HP (elliott@hp.com)
Date: 15 December 2006
Subject: e06126r3 ATA8-ACS NOP clarifications

Revision history

Revision 0 (3 April 2006) First revision
Revision 1 (17 April 2006) Updated to be based on ATA8-ACS revision 3a. Incorporated comments from T13 reflector, which identified a difference between NOP Subcommand 00h and Unsupported commands.
Revision 2 (7 December 2006) Incorporated comments from October 2006 T13 meeting
Revision 3 (15 December 2006) Incorporated comments from December 2006 T13 meeting

Related documents

d1699r3e - AT Attachment - 8 ATA/ATAPI Command Set (ATA8-ACS) revision 3e
d97142r1 AutoPolling Proposal (Tony Goodfellow, GSI) - during ATA/ATAPI-4 letter ballot
e05131r1 IDENTIFY DEVICE requirements (Curtis Stevens, Western Digital)
e05155r1 June 2005 minutes

Overview

IDENTIFY DEVICE data and IDENTIFY PACKET DEVICE data includes bits indicating whether or not the NOP command is supported.

The difference in response between NOP with subcommand 00h and an unsupported command is subtle. Both set ERR=1 and ABRT=1 and return the same transport-specific results for BSY, DRQ, and DRDY. However, NOP with subcommand 00h guarantees that DF (device fault) is valid, while this is not guaranteed for an unsupported command.

NOP with subcommands 01h-FFh have clearly different behavior - these subcommands do not abort commands in the TCQ queue. Subcommand 01h also flushes (cached) data to the media.

Suggested changes include:

a) Clarify the hardware polling description in 4.18.
b) Add a section defining Unsupported commands defining that only ERR and ABRT are reliable. Remove sentences in some of the command descriptions stating that the device returns command aborted if the command is not supported. That is true for all commands, not just the ones that mention it.

Suggested changes

3.1.13 command aborted: Command completion with ERR set to one in the Status field and ABRT set to one in the Error field.

3.1.16 command completion: The completion by the device of the action requested by the command or the termination of the command with an error, the setting of the appropriate bits in the Error field, and the setting of the appropriate bits in the Status field.

3.1.17 command released: When a device supports the TCQ feature set, a command is considered released when a ~~Release~~release occurs before command completion.

3.1.39 ~~Release~~release: The action by a device implementing the TCQ feature set that allows a host to select an alternate device or deliver another queued command.

3.2.4.5 obsolete: A keyword indicating that the designated bits, bytes, words, fields, and code values that may have been defined in previous standards are not defined in this standard and shall not be reclaimed for other uses in future standards. However, some degree of functionality may be required for items designate as “obsolete” to provide for backward compatibility.

Obsolete commands should not be used by the host. Commands defined as obsolete may be command aborted by devices conforming to this standard. However, if a device does not command abort an obsolete command, the minimum that is required by the device in response to the command is command completion.

4.2 General feature set

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The following General feature set commands are optional for devices not implementing the PACKET command feature set:

a) DOWNLOAD MICROCODE
b) NOP
c) READ BUFFER
d) WRITE BUFFER
e) WRITE UNCORRECTABLE

...

4.18 Tagged Command Queuing (TCQ) feature set

4.18.1 Overview

The optional TCQ feature set allows devices that require extended command time to perform a release so that the other device on the bus may be used. See the appropriate transport standard for the transport specific elements of service and release.

When the TCQ feature set is supported, the following commands shall be implemented:

a) NOP ~~(with a subcommand code other than 00h)~~
b) READ DMA QUEUED
c) SERVICE
d) WRITE DMA QUEUED

When the TCQ feature set ~~is~~and the 48-bit feature set are both supported, the following commands ~~are optional~~shall be implemented:

a) READ DMA QUEUED EXT
b) WRITE DMA QUEUED EXT
c) WRITE DMA QUEUED FUA EXT

For the READ DMA QUEUED ~~and~~, READ DMA QUEUED EXT, WRITE DMA QUEUED, WRITE DMA QUEUED EXT, and WRITE DMA QUEUED FUA EXT commands, the device may or may not perform a release. If the device is ready to complete execution of ~~the~~one of these commands, the device may complete the command ~~immediately~~without performing a release. If the device is not ready to complete execution of the command, the device may perform a release and complete the command via a service request.

If a device has an outstanding command ~~that has been released~~and has performed a release, the device ~~only~~ indicates that service is required only when the device is selected. ~~This implies that the host has to poll~~ If there is more than one device in a domain that has an outstanding command and has performed a release, then the host polls each device to determine if ~~a device~~it is requesting service. ~~The polling is performed at the host either by hardware or by a software routine. The latter implies a considerable host processor overhead.~~ To minimize host processor overhead, an application client may initiate hardware ~~Hardware~~ polling in a host adapter that supports it ~~is initiated~~ by issuing the NOP command with the NOP Auto Poll subcommand (see 7.24).

~~The NOP Auto Poll command is a host adapter function and is ignored by the device. The host software may test for the support of this feature by~~An application client may test whether or not the host adapter supports hardware polling by issuing the NOP command with the NOP Auto Poll subcommand and checking the response as follows: ~~for command aborted.~~

a) If the host adapter does not support ~~this feature~~hardware polling, it transmits the NOP ~~poll~~ command with the NOP Auto Poll subcommand ~~shall be transmitted~~ to the device ~~and the device shall~~ and returns the response from the device. The device terminates ~~abort~~ the command with the ABRT bit set to one and the ERR bit set to one~~.~~ (see 7.24); and

NOTE 1 - This flushes the write cache but does not abort any TCG queued commands (see 7.24).

b) If the host adapter does support hardware polling ~~the command~~, the host adapter does not transmit the command to the device. Instead, it initiates hardware polling and generates a response ~~shall be from the host adapter~~ with the ABRT bit set to one and the ERR bit cleared to zero (see 7.24). ~~The only action taken by a device supporting the Overlapped feature set shall be to return the error indication in the Status field and to not abort any outstanding commands.~~

Editor's Note 1: d97142r1 explains the intention of this command, which was added in ATA/ATAPI-4. It provides more detail on what "hardware polling" means and what causes it to stop. Since T13 chose not to include that detail in ATA/ATAPI-4+, this proposal leaves the details murky as well.

~~When this command is received, the user data shall be written to the device media before ending status for the command is reported regardless of the state of any write cache or queue. A queue shall not be aborted.~~

Editor's Note 2: 1st sentence in above paragraph moved to NOP description (reworded in terms of "write cache"). 2nd sentence already there.

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6 Status and Error ~~bits~~fields

6.1 Status ~~Bits~~field

6.1.1 Busy (BSY) bit

Status bit 7. ~~This~~The BSY bit is transport dependent. Refer to the applicable transport standard for the usage of ~~this~~the BSY bit.

6.1.2 Error (ERR) bit

Status bit 0. ~~The Error bit in the status field~~The ERR bit shall be set to one if any bit in the Error field (see 6.2) is set to one.

6.1.3 Device Fault (DF) bit

Status bit 5. If the device enters a condition where continued operation could affect user data integrity, the device shall set ~~the DF bit in the status field~~the DF bit to one and no longer accept commands. This condition is only cleared by power cycling the drive. Once the DF bit has been cleared to zero it may remain clear until a command that could affect user data integrity is received by the device. Examples of conditions that may cause the DF bit to be set to one by a device are: Failure to spin-up properly, and no spares remaining for reallocation.

6.1.4 Device Ready (DRDY) bit

Status bit 6. ~~This~~The DRDY bit is transport dependent. Refer to the applicable transport standard for the usage of ~~this~~the DRDY bit.

6.1.5 Data Request (DRQ) bit

Status bit 4. ~~This~~The DRQ bit is transport dependent. Refer to the appropriate transport standard for the usage of ~~this~~the DRQ bit.

6.1.6 Deferred Write Error (DWE) bit

Status bit 4. ~~DWE~~The DWE bit shall be set to one if an error was detected in a deferred write to the media for a previous WRITE STREAM DMA EXT or WRITE STREAM EXT command. This error is from a previously issued command. If ~~DWE~~the DWE bit is set to one, the location of the deferred error is only reported in the Write Stream error log.

6.1.7 Service (SERV)

Status bit 4. ~~SERV~~The SERV bit shall be cleared to zero when no other queued command is ready for service. ~~SERV~~The SERV bit shall be set to one when another queued command is ready for service. ~~SERV~~The SERV bit shall be set to one when the device has prepared this command for service. If the TCQ feature set is not supported, ~~this~~the SERV bit is command specific.

6.2 Error ~~Bits~~field

6.2.1 Abort (ABRT) bit

Error bit 2. An ABRT bit set to one indicates the command was aborted. An ABRT bit cleared to zero indicates the command was not aborted.

Each command description indicates the conditions under which the command is terminated with the ABRT bit set to one (e.g., the device is not able to complete the action requested by the command). ABRT is set to one when the device chooses not to return IDNF (see 4.10.3 and 6.2.4). ABRT is set to one if an unsupported command is received (see 7.new).

~~Abort shall be set to one if the command is not supported. Abort may be set to one if the device is not able to complete the action requested by the command. Abort shall also be set to one if an address outside of the range of user accessible addresses is requested if IDNF is not set to one.~~

6.2.2 Command Completion Time Out (CCTO) bit

Error bit 0. ~~CCTO~~The CCTO bit shall be set to one if a Command Completion Time Limit Out error has occurred.

6.2.3 End of Media (EOM) bit

Error bit 1. The operation of ~~this~~the EOM bit is specific to the SCSI command set implemented by ATAPI devices.

6.2.4 ID Not Found (IDNF) bit

Error bit 4. ~~ID Not Found~~The IDNF bit shall be set to one if a user-accessible address could not be found. ~~ID Not Found~~The IDNF bit shall be set to one if an address outside of the range of user-accessible addresses is requested when command aborted is not returned (see 4.10.3 and 6.2.1).

6.2.5 Illegal Length Indicator (ILI) bit

Error bit 0. The operation of ~~this~~the ILI bit is specific to the SCSI command set implemented by ATAPI devices.

6.2.6 Interface CRC (ICRC) bit

Error bit 7. ~~Interface CRC~~The ICRC bit shall be set to one if an interface CRC error has occurred during an Ultra DMA data transfer. The content of ~~this~~the ICRC bit may be applicable to Multiword DMA and PIO data transfers.

6.2.7 Media Error (MED) bit

Error bit 0. ~~Media Error~~The MED bit shall be set to one if a media error is detected.

6.2.8 Sense Key field

Error bits (7:4). The operation of this four bit field is specific to the SCSI command set implemented by ATAPI devices.

6.2.9 Uncorrectable Error (UNC) bit

Error bit 6. ~~Uncorrectable Error~~The UNC bit shall be set to one if data is uncorrectable.

6.2.10 Write Protect (WP) bit

Error bit 6. ~~Write Protect~~The WP bit shall be set to one for each execution of GET MEDIA STATUS while the media is writeprotected.

6.2.11 Attempted partial range removal (APRR) bit

Error bit 0. The APRR bit shall be set to one if the REMOVE LBA(S) FROM NV CACHE PINNED SET ~~The~~ command (see 7.21.7) attempted to unpin part of a previously defined command range.

6.2.12 Insufficient NV Cache space (INVC) bit

Error bit 0. The INVC bit shall be set to one if there ~~There~~ is not enough NV Cache to satisfy the ~~NV Cache~~ADD LBA(S) TO NV CACHE PINNED SET command (see 7.21.3).

6.2.13 Insufficient LBA Range Entries remaining (ILRE) bit

Error bit 1. The device has run out of space to store LBA ranges for ~~NV Cache~~the ADD LBA(S) TO NV CACHE PINNED SET command (see 7.21.3).

6.3 Interrupt Reason ~~Bits~~field

6.3.1 Command/Data (C/D) bit

Count bit 0. The C/D bit shall ~~Shall~~ be ~~set~~cleared to zero if the transfer is data, otherwise ~~C/D~~the C/D bit shall be set to one.

6.3.2 Input/Output (I/O) bit

Count bit 1. The I/O bit shall ~~Shall~~ be cleared to zero if the transfer is to the device (O). The I/O bit shall ~~Shall~~ be set to one if the transfer is to the host (I).

6.3.3 Release (REL) bit

Count bit 2. The REL bit shall ~~Shall~~ be set to one if a command has been accepted but not completed and the device is ready to accept another command.

6.3.4 Tag field

Counts bits (7:3). If ~~the device supports command queuing and overlap~~the TCQ feature set is enabled, this field contains the command Tag for the command. A Tag value may be any value between 0 and 31 regardless of the queue depth supported.

7 Command Descriptions

7.1 Overview

7.new Unsupported commands

If the device receives an unsupported command, it shall respond with command aborted as described in table 1.

Table 1 — Unsupported command Error Status

Word	Name	Description
00h	Error	Bit: Description 15:8 Reserved 7:5 N/A 4 N/A 3 N/A 2 ABRT - Set to one (see 6.2.1) 1 N/A 0 N/A
01h	Count	N/A
02h-03h	LBA	N/A
05h	Device	N/A
	Status	Bit: Description 15:8 Reserved 7:6 Transport Dependent - See 6.1.10 5 N/A 4:1 N/A 0 ERR - Set to one (see 6.1.3)

The host should not issue commands that are indicated as not supported.

Editor's Note 3: That table can be placed in 9.3 with the other Error Output tables if appropriate

7.5 CFA WRITE MULTIPLE WITHOUT ERASE - CDh, PIO data-out

7.5.5 Error Outputs

~~The device shall return command aborted if the command is not supported.~~ ...

7.6 CFA WRITE SECTORS WITHOUT ERASE - 38h, PIO data-out

7.6.5 Error Outputs

~~The device shall return command aborted if the command is not supported.~~ ...

78 CHECK POWER MODE - E5h, Non-data

7.6.5 Error Outputs

~~The device shall return command aborted if the device does not support the Power Management feature set .~~ See table 116.

7.16 IDENTIFY DEVICE - ECh, PIO Data-in

7.16.1 Feature Set

This command is mandatory for all devices.

7.16.2 Description

The IDENTIFY DEVICE command enables the host to receive a 512-byte block of data from the device. See 7.16.7 for a description of the return data.

Some devices may have to read the media in order for all applicable IDENTIFY DEVICE data fields to be valid.

The IDENTIFY DEVICE data contains information regarding optional feature or command support. ~~If the host issues a command that is indicated as not supported in the IDENTIFY DEVICE data, the device shall abort the command.~~

Editor's Note 4: Moved that sentiment to 7.new

...

7.16.5 Normal Outputs for PACKET Command feature set devices

In response to this command, devices that implement the PACKET Command feature set shall ~~post~~return command aborted and place the PACKET Command feature set signature in the appropriate fields (see 7.11.4).

7.16.7 Input Data

...

Table 14 — IDENTIFY DEVICE data

Word	Description
...	
82	Command set supported. 15 Obsolete 14 1 = NOP command supported 13 1 = READ BUFFER command supported 12 1 = WRITE BUFFER command supported 11 Obsolete 10 1 = Host Protected Area feature set supported 9 1 = DEVICE RESET command supported 8 1 = SERVICE interrupt supported 7 1 = release interrupt supported 6 1 = look-ahead supported 5 1 = write cache supported 4 Shall be cleared to zero to indicate that the PACKET Command feature set is not supported. 3 1 = Power Management feature set supported 2 1 = Removable Media feature set supported 1 1 = Security Mode feature set supported 0 1 = SMART feature set supported
85	Command set/feature enabled/supported. 15 Obsolete 14 1 = NOP command supported 13 1 = READ BUFFER command supported 12 1 = WRITE BUFFER command supported 11 Obsolete 10 1 = Host Protected Area feature set enabled 9 1 = DEVICE RESET command supported 8 1 = SERVICE interrupt enabled 7 1 = release interrupt enabled 6 1 = look-ahead enabled 5 1 = write cache enabled 4 Shall be cleared to zero to indicate that the PACKET Command feature set is not supported. 3 1 = Power Management feature set enabled 2 1 = Removable Media feature set supported 1 1 = Security Mode feature set enabled 0 1 = SMART feature set enabled
...	

...

7.16.7.34 Words 82-84: Features/command sets supported

Words 82-84 and 119 shall indicate features/command sets supported. If a defined bit is cleared to zero, the indicated features/command set is not supported. If bit 14 of word 83 is set to one and bit 15 of word 83 is cleared to zero, the contents of words 82-83 contain valid support information. If not, support information is not valid in these words. If bit 14 of word 84 is set to one and bit 15 of word 84 is cleared to zero, the contents of word 84 contains valid support information. If not, support information is not valid in this word. If bit 14 of word 119 is set to one and bit 15 of word 119 is cleared to zero, the contents of word 119 contains valid support information. If not, support information is not valid in ~~this~~ word 119.

...

If bit 14 of word 82 is set to one, the device supports the NOP command (see 7.24).

...

7.16.7.43 Words 85-87: Features/command sets enabled

Words 85-87 and 120 shall indicate features/command sets enabled. If a defined bit is cleared to zero, the indicated features/command set is not enabled. If a supported features/command set is supported and cannot be disabled, it is defined as supported and the bit shall be set to one. If bit 14 of word 87 is set to one and bit 15 of word 87 is cleared to zero, the contents of words 85-87 contain valid information. If not, information is not valid in words 85-87. If bit 14 of word 120 is set to one and bit 15 of word 120 is cleared to zero, the contents of word 120 contain valid information. If not, information is not valid in ~~these words~~word 120.

...

If bit 14 of word 85 is set to one, the device supports the NOP command (see 7.24).

...

7.24 NOP - 00h, Non-data

7.24.1 Feature Set

This command is mandatory for devices implementing the PACKET Command feature set. This command is mandatory for devices implementing the TCQ feature set.

7.24.2 Description

~~The device shall respond with command aborted. For devices implementing the TCQ feature set, subcommand code 00h in the Feature field shall abort any outstanding queue. Subcommand codes 01h through FFh in the Feature field shall not affect the status of any outstanding queue.~~

The subcommand determines the effect on TCQ queued commands (see table 19 in 7.24.3).

7.24.3 Inputs

Table 15 — (no title)

Word	Name	Description
00h	Feature	Subcommand Code (see table 19)
01h	Count	N/A
02h-04h	LBA	N/A
05h	Command	00h

Table 19 — NOP Subcommand Code

Subcommand Code	Description	Action
00h	NOP	Return command aborted and abort any outstanding queued commands.
01h	NOP Auto Poll	When processed by a device, write all data in the write cache to the media and returnReturn command aborted and do not abort any outstanding TCQ queued commands (see 4.18.2). When processed by a host adapter that supports hardware polling, initiate hardware polling, do not transmit the command to the device, and return ABRT set to one and ERR set to zero (see 4.18.1).
02h-FFh	Reserved	Return command aborted and do not abort any outstanding TCQ queued commands (see 4.18.2).

7.24.4 Normal Outputs

This command always fails with an error (see 7.24.5) for:

a) subcommand code 00h;
b) subcommand 01h when processed by a device;
c) and subcommands 02h-FFh.

When subcommand code 01h is processed by a host adapter as a host adapter function (see 4.18), see table 95. [the “Generic Normal Output (No LBA Return Value)” table]

The Count and LBA fields retain the values that were present when the NOP command was accepted.

7.24.5 Error Outputs

All fields are preserved with the exception of Error and Status. This command always fails with the device returning command aborted. See table 133.

7.30 READ DMA QUEUED - C7h, DMA Queued

7.30.5 Error Outputs

The Count field contains the Tag for this command if the device supports command queuing. The device shall return command aborted if the command is not supported or if the device has not had overlapped interrupt enabled. ...

7.31 READ DMA QUEUED EXT- 26h, DMA Queued

7.31.5 Error Outputs

The Count field contains the Tag for this command if the device supports command queuing. The device shall return command aborted if the command is not supported or if the device has not had overlapped interrupt enabled.

7.32 READ LOG EXT - 2Fh, PIO data-in

7.32.5 Error Outputs

If the device does not support this command, if the feature set associated with the log specified in the LBA field (7:0) is not supported or enabled, or if the values in the Features, Count, or LBA (47:8) fields are invalid, the device shall return command aborted. ...

7.44 SECURITY DISABLE PASSWORD - F6h, PIO data-out

7.44.5 Error Outputs

The device shall return command aborted if ~~the command is not supported,~~ the device is in Locked mode~~,~~ or the device is in Frozen mode.

7.51 SET FEATURES - EFh, Non-data

7.51.10 Enable/Disable Write-Read-Verify feature set

Subcommand code 0Bh enables the Write-Read-Verify feature set. When this feature set is supported and enabled, the device shall exhibit the following behavior. When this feature set is not supported, the command shall be aborted.

...

Subcommand code 8Bh disables the Write-Read-Verify feature set. When this feature set is not supported, the command shall be aborted. A subsequent IDENTIFY DEVICE or IDENTIFY PACKET DEVICE command shall reflect the disabled state of the feature set.

...

7.50 SERVICE - A2h, Packet or DMA queued

7.50.1 Feature Set

This command is mandatory for devices that implement the TCQ Feature set.

The SERVICE command is used to provide data transfer and/or status of a command that was previously released.

The device shall have performed a release for a previous READ DMA QUEUED, READ DMA QUEUED EXT, WRITE DMA QUEUED, WRITE DMA QUEUED EXT, or WRITE DMA QUEUED FUA EXT ~~or WRITE DMA QUEUED EXT~~ command and shall have set the ~~Service~~ SERV (see 6.1.9) bit to one to request the SERVICE command be issued to continue data transfer and/or provide command status (see 7.51.16).

7.52 SET MAX

7.52.2 SET MAX ADDRESS - F9h

7.52.2.5 Error Outputs

If ~~this command is not supported,~~ the maximum value to be set exceeds the capacity of the device, a host protected area has been established by a SET MAX ADDRESS EXT command, or the device is in the Set_Max_Locked or Set_Max_Frozen state, then the device shall return command aborted.

7.53 SET MAX ADDRESS EXT - 37h, Non-data

7.53.5 Error Outputs

If ~~this command is not supported,~~ the maximum value to be set exceeds the capacity of the device, a host protected area has been established by a SET MAX ADDRESS command, the command is not immediately preceded by a READ NATIVE MAX ADDRESS EXT command, or the device is in the Set_Max_Locked or Set_Max_Frozen state, then the device shall return command aborted.

7.56.3 SMART ENABLE/DISABLE ATTRIBUTE AUTOSAVE - B0h/D2h, Non-data

7.56.3.2 Description

...

~~If this command is not supported by the device, the device shall return command aborted upon receipt from the host.~~

...

7.56.7.2.5 Comprehensive error log

7.56.7.2.5.1 Overview

Table 57 defines the format of each of the 512-byte blocks of data that comprise the SMART comprehensive error log. The SMART Comprehensive error log provides logging for 28-bit addressing only. For 48-bit addressing, see 7.32.2.2. The maximum size of the SMART comprehensive error log shall be 51 512-byte

blocks of data. Devices may support fewer than 51 512-byte block of data. All multi-byte fields shown in this structure follow the byte ordering described in 3.2.8. The comprehensive error log data structures shall include UNC errors, IDNF errors for which the address requested was valid, servo errors, write fault errors, etc. Comprehensive error log data structures shall not include errors attributed to the receipt of faulty commands such as command codes not supported by the device or requests with invalid parameters or invalid addresses.

7.61 TRUSTED SEND – 5Eh

7.61.5 Error outputs

The device shall return command aborted ~~if the command is not supported or~~ if an unrecoverable error occurred during the execution of the command. The amount of data transferred is indeterminate.

7.67 WRITE DMA QUEUED - CCh, DMA Queued

7.67.5 Error Outputs

The Count field contains the Tag for this command if the device supports command queuing. ~~The device shall return command aborted if the command is not supported.~~

7.68 WRITE DMA QUEUED EXT - 36h, DMA Queued

7.68.5 Error Outputs

The Interrupt Reason field contains the Tag for this command if the device supports command queuing. ~~The device shall return command aborted if the command is not supported.~~

7.70 WRITE LOG EXT - 3Fh, PIO data-out

7.70.5 Error Outputs

If ~~the device does not support this command, if~~ the feature set associated with the log specified in the LBA field (7:0) is not supported or enabled, or if the values in the Features, Count, or LBA (47:8) are invalid, the device shall return command aborted.

8 SCT Command Transport

8.1 Overview

If the General Purpose Logging feature set is not supported by the device, then the READ LOG EXT and WRITE LOG EXT commands shall not be issued by the host.

If the SMART feature set is not supported by the device, then the SMART READ LOG and SMART WRITE LOG commands shall not be issued by the host.

9.3 Error Outputs

The following tables document all the possible Error Outputs a command returns. References to these tables are found in clause 7.

...

Reference 7.24

Table 133 — NOP Error

Word	Name	Description
00h	Error	Bit Description 15:8 Reserved 7:3 N/A 2 Abort - See 6.2.1. 1:0 Obsolete
01h	Count	The contents of the Count field when the NOP command was accepted
02h-04h	LBA	The contents of the LBA field when the NOP command was accepted
05h	Device	Bit Description 15 Obsolete 14 N/A 13 Obsolete 12 Transport Dependent - See 6.1.10 11:8 Reserved
	Status	Bit Description 15:8 Reserved 7:6 Transport Dependent - See 6.1.11. 5 Device Fault - See 6.1.4 4 N/A 3 Transport Dependent - See 6.1.11. 2:1 N/A 0 Error - See 6.1.3